

of any chlorinated compounds. They are not believed to be related to operation of the MGP.

1994 - through June

Phase I of construction at the WTF is complete except for the construction of the clearwell. Dewatering wells were installed in the contaminated area to suppress groundwater levels during construction. Contaminated wastewater was discharged to the local POTW under a sewer construction permit. Samples were collected of the finished water before new portions of piping were put into service. No MGP contaminants were detected.

MANUFACTURED GAS PLANT SITE

RANK SCORESHEET

Site Name: Southern Illinois Light & Power Co. - Hillsboro

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size	1		
Location		2	
Potential for Contamination			
0 - 20'			3
20 - 50'	1		
Current Use	1		
Current Ownership	1		
II. Waste Characteristics			
Visible Wastes		2	
Odor Problem	1		
Water Problem	1		
III. Facility Structures		2	
IV. Water Resource Characteristics			
Surface Water Proximity			3
Surface Water Use	1		
Groundwater Proximity			3
Groundwater Use	1		
Other:			
Subtotal	8	6	9
Total	23		

Jacksonville Manufactured Gas Plant (MGP)
SITE SUMMARY REPORT

Location: The site is situated on three parcels of property and is located in the central business district of the City of Jacksonville. The site is bounded on the north by Beecher Avenue West, on the south by Town Brook, on the east by South Main Street, and on the west by the alley between Southwest Avenue and South Main Street.

Physical Description: Topography, in general, slopes toward Town Brook. The entire site is contained within the Town Brook drainage basin.

Owner of Site: Illinois Power, Anthony Gaudio and Sons, Inc., Gabco, Inc., and the Colton, Downey & Hubbard Insurance Agency

Current Use: Illinois Power owns and operates the electrical substation located on the south side of Anna Street. Illinois Power also owns the property where the Spin Jet car wash is operated. The remaining parts of the site are owned by two other parties: Anthony Gaudio and Sons, Inc. (Gaudio and Sons) and Gabco, Inc. who are owners of a beer distributorship; and the Colton, Downey & Hubbard Insurance Agency.

Assessment Concerns:

- ♦ A car wash, insurance agency, and a beer distributor have facilities over most of the former gas plant facilities.
- ♦ IP gas crew have noted odors in the ground when excavating in the streets adjacent to the site and coal-tar-impacted soil was found when a new gas line was laid to the car wash.
- ♦ Town Brook is adjacent to the site.
- ♦ Anna Street Substation was constructed over a gas holder. It was also reported that there used to be a landfill under the substation. The gas holder was constructed partially below ground surface.
- ♦ Residence adjacent to the site.

Brief Summary of Activities:

A Phase I Preliminary Site Investigation (PSI) has been conducted on the Jacksonville MGP. The work conducted as part of this Phase I PSI consisted of the following activities:

- ♦ review of IP records

- ♦ review of relevant available information on geology, soils, water resources and infrastructure
- ♦ site visits to conduct interviews, gather general information, and to perform non-invasive site investigations using soil gas monitoring and geophysical techniques
- ♦ analysis of collected data with respect to the presence of potential contamination and contamination migration pathways

Illinois Power purchased part of the site where the Spin Jet car wash is located from Robert and Richard Smith in 1991. The property was leased back and the car wash continues to operate.

Periodic site inspections have been conducted to ensure that no changes have occurred at the site which would change the status of the environmental or human health risk associated with past gas manufacturing activities. The most recent inspection during March, 1994 did not document any changes in the condition of the site.

No other additional activities have been conducted at this site.

MANUFACTURED GAS PLANT SITE

RANK SCORESHEET

Site Name: Jacksonville Gas Light & Coke Co.

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size	1		
Location		2	
Potential for Contamination			
0 - 20'			3
20 - 50'			3
Current Use		2	
Current Ownership	1		
II. Waste Characteristics			
Visible Wastes	1		
Odor Problem	1		
Water Problem	1		
III. Facility Structures		2	
IV. Water Resource Characteristics			
Surface Water Proximity			3
Surface Water Use	1		
Groundwater Proximity			3
Groundwater Use	1		
Other: Coal-tar-impacted soil was found when a new gas line was laid to the car wash.			3
Subtotal	7	6	15
Total	28		

Kewanee Manufactured Gas Plant (MGP)
SITE SUMMARY REPORT

Location: Southeast corner of North Main and 5th Streets, Kewanee, Illinois. An additional site is located approximately 72 feet north of the site. This property is not contiguous to the MGP.

Physical Description: The general site topography slopes very gently from south to north. The larger 2 acre site is entirely fenced and secured. The small lot located north of the site is also fenced and secured.

Owner of Site: Illinois Power and Rheem Central Air Conditioning and Heating (Woltil's)

Current Use: West half - Warehouse for Rheem Central Air Conditioning and Heating; East half - Illinois Power electrical distribution substation

Assessment Concerns:

- ♦ Residential area nearby.
- ♦ IP substation over part of the site.
- ♦ Part of the site is owned by a heating and air conditioning contractor.
- ♦ Tars appear to have migrated off-site.
- ♦ Black liquid was encountered near the north gas holder during Phase I.
- ♦ A tar separator pit inside the substation had to be pumped in 1984 when it caved in. This separator was full of tar.

Brief Summary of Activities:

A Phase I Preliminary Site Investigation (PSI) has been conducted on the Kewanee MGP. The work conducted as part of this Phase I PSI consisted of the following activities:

- ♦ review of IP records
- ♦ review of relevant available information on geology, soils, water resources and infrastructure
- ♦ site visits to conduct interviews, gather general information, and to perform non-invasive site investigations using soil gas monitoring and geophysical techniques

- ♦ analysis of collected data with respect to the presence of potential contamination and contamination migration pathways

Coal tar was removed from a collapsed tar separator during substation work in 1984.

Periodic site inspections have been conducted to ensure that no changes have occurred at the site which would change the status of the environmental or human health risk associated with past gas manufacturing activities.

During the 1994 inspection, it was observed that the owner of the heating and air conditioning business had dumped debris behind the building, which appeared to be possibly asbestos-containing material and old propane tanks.

No other additional activities have been conducted at this site.

MANUFACTURED GAS PLANT SITE

RANK SCORESHEET

Site Name: Kewanee Public Service Co.

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size	1		
Location		2	
Potential for Contamination			
0 - 20'	1		
20 - 50'	1		
Current Use		2	
Current Ownership		2	
II. Waste Characteristics			
Visible Wastes			3
Odor Problem	1		
Water Problem	1		
III. Facility Structures			3
IV. Water Resource Characteristics			
Surface Water Proximity	1		
Surface Water Use	1		
Groundwater Proximity	1		
Groundwater Use		2	
Other:			
Subtotal	8	8	6
Total	22		

LaSalle Manufactured Gas Plant (MGP)
SITE SUMMARY REPORT

Location: Creve Coeur and River Streets, LaSalle, Illinois

Physical Description: The topography varies from flat to rolling. The Illinois River Valley encompasses the area surrounding the site. The site is immediately adjacent to the Illinois-Michigan Canal and the Illinois River.

Owner of Site: Illinois Power and Clifford Spiller, who leases the property to National Metalwares, Inc.

Current Use: Illinois Power Company owns and operates the electrical distribution substation located on the north side of the property; National Metalwares occupies the southern portion of the property and is a manufacturing company. The lease expired in May, 1994 and National Metalwares is closing the facility.

Assessment Concerns:

- ♦ Part of the gas plant is not owned by IP and was leased to National Metalwares. However, a parking lot covers much of the main gas plant area.
- ♦ Odors have been detected in the area near the canal.
- ♦ During 1984, a five- to six-foot clay levee was constructed along the southern boundary of the site for flood control. A cement-bentonite cut-off wall was constructed within the levee. During test borings, oily substances and hydrocarbon odors were documented.
- ♦ The area of two gas holders is occupied by an IP substation.
- ♦ City of Peru gets water supply from "shallow" wells (approximately 60' deep). A canal is adjacent to the site.
- ♦ Adjacent facilities include a fertilizer storage tank farm. West of the property was formerly used as a mine tailings dump site.

Brief Summary of Activities:

A Phase I Preliminary Site Investigation (PSI) has been conducted on the LaSalle MGP. The work conducted as part of this Phase I PSI consisted of the following activities:

- ♦ review of IP records
- ♦ review of relevant available information on geology, soils, water resources and infrastructure

- ♦ site visits to conduct interviews, gather general information, and to perform non-invasive site investigations using soil gas monitoring and geophysical techniques
- ♦ analysis of collected data with respect to the presence of potential contamination and contamination migration pathways

Periodic site inspections have been conducted to ensure that no changes have occurred at the site which would change the status of the environmental or human health risk associated with past gas manufacturing activities.

1993

During a routine site inspection, samples of sediments from the canal adjacent to the site were inspected for the presence of coal tar. No coal tar, stains, or sheens were observed in these sediment samples.

1994

Relatives of the owner (potential inheritors) requested that IP tour the facility as potential buyers, and discuss plans for cleanup of the MGP site. Because of potential contamination from National Metalwares, IP indicated they would not repurchase the site. IP stated they would be responsible for any required cleanup of MGP contamination; however, due to other priorities and budget constraints, a site investigation would not be scheduled this year.

During the inspection of National Metalwares, it was noted that the condition of the building is poor; the basement is filling up with groundwater and is a physical hazard as well as having some visible oil contamination; an above-ground fuel tank showed signs of leakage; and a UST containing solvent and water may be leaking. National Metalwares has already spent approximately \$300,000 to clean up the basement.

MANUFACTURED GAS PLANT SITE

RANK SCORESHEET

Site Name: Citizens Lighting Co. - LaSalle

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size		2	
Location			3
Potential for Contamination			
0 - 20'			3
20 - 50'			3
Current Use			3
Current Ownership			3
II. Waste Characteristics			
Visible Wastes			3
Odor Problem	1		
Water Problem			3
III. Facility Structures			3
IV. Water Resource Characteristics			
Surface Water Proximity			3
Surface Water Use			3
Groundwater Proximity			3
Groundwater Use			3
Other:			
Subtotal	1	2	36
Total	39		

Litchfield Manufactured Gas Plant (MGP)
SITE SUMMARY REPORT

Location: Southeast and southwest corners of Edwards and Jefferson Streets, Litchfield, Illinois. The portion of the site on the southwest corner does not appear to have been associated with MGP operations.

Physical Description: The site is located in an area of nearly flat to gently rolling topography. The site is entirely surrounded by a chain link fence which remains locked at all times except during IP use.

Owner of Site: Illinois Power Company

Current Use: Illinois Power electrical substation on the western portion of the site; gas regulator station, service building, storage area and vehicle maintenance facility on the eastern portion.

Assessment Concerns:

- ♦ IP employees working inside former gas plant building.
- ♦ Near residential area and the downtown district.
- ♦ Gas holder constructed partially below ground surface.

Brief Summary of Activities:

A Phase I Preliminary Site Investigation (PSI) has been conducted on the Litchfield MGP. The work conducted as part of this Phase I PSI consisted of the following activities:

- ♦ review of IP records
- ♦ review of relevant available information on geology, soils, water resources and infrastructure
- ♦ site visits to conduct interviews, gather general information, and to perform non-invasive site investigations using soil gas monitoring and geophysical techniques
- ♦ analysis of collected data with respect to the presence of potential contamination and contamination migration pathways

Periodic site inspections have been conducted to ensure that no changes have occurred at the site which would change the status of the environmental or human health risk associated with past gas manufacturing activities. The most recent site inspection (March, 1994) did not document any changes in site conditions.

No other additional activities have been conducted at this site.

MANUFACTURED GAS PLANT SITE

RANK SCORESHEET

Site Name: Litchfield Gas & Electric Co.

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size	1		
Location		2	
Potential for Contamination			
0 - 20'	1		
20 - 50'		2	
Current Use	1		
Current Ownership	1		
II. Waste Characteristics			
Visible Wastes	1		
Odor Problem	1		
Water Problem	1		
III. Facility Structures		2	
IV. Water Resource Characteristics			
Surface Water Proximity	1		
Surface Water Use	1		
Groundwater Proximity	1		
Groundwater Use	1		
Other: Gas Holder Foundation			3
Subtotal	11	6	3
Total	20		

Monmouth Manufactured Gas Plant (MGP)
SITE SUMMARY REPORT

Location: 423 E. 5th Avenue, Monmouth, Illinois

Physical Description: The area surrounding the site is relatively flat, with no indication of a dominant drainage pattern. The area around the site is residential and industrial.

Owner of Site: City of Monmouth

Current Use: The City of Monmouth currently uses the property for equipment and material storage. Located on site are a building which is used as a vehicle wash facility and a storage area for railcar tanks containing road tar. There is a record of the city-owned underground gasoline storage tanks leaking at this site.

Assessment Concerns:

- ♦ Residences adjacent to the site.
- ♦ City of Monmouth stores road tar in an aboveground tank and has spillage on the ground.
- ♦ Access to site by adjacent residents is unrestricted.
- ♦ Former leaking gasoline tank (owned by City) was buried inside gas holder. The tank was filled with sand and abandoned in place in 1974.
- ♦ IP gas crews and City of Monmouth water crews noted odors and black film on the groundwater during excavations on or adjacent to the site.
- ♦ High water table (reported to be within several feet of the ground surface).
- ♦ Gas holder was constructed partially below ground surface.
- ♦ IP does not own the site.

Brief Summary of Activities:

A Phase I Preliminary Site Investigation (PSI) has been conducted on the Monmouth MGP. The work conducted as part of this Phase I PSI consisted of the following activities:

- ♦ review of IP records
- ♦ review of relevant available information on geology, soils, water resources and infrastructure

- ♦ site visits to conduct interviews, gather general information, and to perform non-invasive site investigations using soil gas monitoring and geophysical techniques
- ♦ analysis of collected data with respect to the presence of potential contamination and contamination migration pathways

Periodic site inspections have been conducted to ensure that no changes have occurred at the site which would change the status of the environmental or human health risk associated with past gas manufacturing activities.

During the 1994 inspection, an accumulation of junk on site was observed, including old auto batteries, which probably have a hazardous material (sulfuric acid) present. No changes related to gas manufacturing activities were noted.

No other additional activities have been conducted at this site.

MANUFACTURED GAS PLANT SITE

RANK SCORESHEET

Site Name: Monmouth Public Service Co.

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size	1		
Location		2	
Potential for Contamination			
0 - 20'	1		
20 - 50'	1		
Current Use		2	
Current Ownership			3
II. Waste Characteristics			
Visible Wastes	1		
Odor Problem	1		
Water Problem	1		
III. Facility Structures		2	
IV. Water Resource Characteristics			
Surface Water Proximity	1		
Surface Water Use	1		
Groundwater Proximity	1		
Groundwater Use		2	
Other: Public water supply well on adjacent property.			3
Subtotal	9	8	6
Total	23		

Mt. Vernon Manufactured Gas Plant (MGP)
SITE SUMMARY REPORT

Location: 11th Street and Casey Avenue - Mt. Vernon, Illinois

Physical Description: The area surrounding the site is relatively flat. The entire 2.3-acre site is fenced and secured.

Owner of Site: Illinois Power and General Radiator

Current Use: The portion of the site owned by General Radiator consists of vacated brick buildings. IP operates an electrical substation located south of General Radiator. A parking lot is located east of the substation.

Assessment Concerns:

- ♦ Former MGP facilities are covered by the General Radiator buildings and IP substation.
- ♦ Residential area near site.
- ♦ Potential of finding residues from General Radiator activities.
- ♦ General Radiator was attempting to sell their property.

Brief Summary of Activities:

A Phase I Preliminary Site Investigation (PSI) has been conducted on the Mt. Vernon MGP. The work conducted as part of this Phase I PSI consisted of the following activities:

- ♦ review of IP records
- ♦ review of relevant available information on geology, soils, water resources and infrastructure
- ♦ site visits to conduct interviews, gather general information, and to perform non-invasive site investigations using soil gas monitoring and geophysical techniques
- ♦ analysis of collected data with respect to the presence of potential contamination and contamination migration pathways

Periodic site inspections have been conducted to ensure that no changes have occurred at the site which would change the status of the environmental or human health risk associated with past gas manufacturing activities. Recent site inspections have noted that the vacated General Radiator

buildings are deteriorating, but site conditions related to former MGP activities have not changed.

No other additional activities have been conducted at this site.

MANUFACTURED GAS PLANT SITE

RANK SCORESHEET

Site Name: Citizens Gas, Electric & Heating Co. - Mt. Vernon

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size	1		
Location		2	
Potential for Contamination			
0 - 20'	1		
20 - 50'	1		
Current Use		2	
Current Ownership			3
II. Waste Characteristics			
Visible Wastes	1		
Odor Problem	1		
Water Problem	1		
III. Facility Structures	1		
IV. Water Resource Characteristics			
Surface Water Proximity	1		
Surface Water Use		2	
Groundwater Proximity	1		
Groundwater Use	1		
Other:			
Subtotal	10	6	3
Total	20		

Peru Manufactured Gas Plant (MGP)
SITE SUMMARY REPORT

Location: South end of vacated Chicago Street in Peru, Illinois

Physical Description: The site is located in a valley along a creek between two steep bluffs approximately 2000 feet from the Illinois-Michigan Canal. The eastern bluff has been filled with mine tailings.

Owner of Site: Illinois Power

Current Use: Vacant.

Assessment Concerns:

- ♦ Unrestricted access to property. Signs of children playing on site have been observed.
- ♦ Slightly impacted soils have been found on property during sewer installation activities.
- ♦ Dumping on site has occurred in the past.

Brief Summary of Activities:

As a result of an Illinois Department of Transportation (IDOT) project, an abbreviated Phase I Site Investigation (SI) was conducted on the Peru MGP during 1991 along the route of the proposed sewer line. The work conducted as part of this Phase I SI consisted of drilling test boreholes in the vicinity of the IDOT's proposed sewer line. The results of this investigation showed no apparent contamination from coal tar residues along the proposed sewer line route. Excavating work during the installation of the sewer line showed slightly impacted soils on the site.

IP purchased the site from the Peru Development Land Trust in 1992.

Periodic site inspections have been conducted to ensure that no changes have occurred at the site which would change the status of the environmental or human health risk associated with past gas manufacturing activities.

During the 1994 inspection, no evidence of coal tar was noted; however, the entire area showed signs of extensive use by children, and open dumping was observed.

No other additional activities have been conducted at this site.

MANUFACTURED GAS PLANT SITE

RANK SCORESHEET

Site Name: Twin City Gas Light Co. - Peru

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size		2	
Location	1		
Potential for Contamination			
0 - 20'			3
20 - 50'			3
Current Use			3
Current Ownership	1		
II. Waste Characteristics			
Visible Wastes			3
Odor Problem		2	
Water Problem	1		
III. Facility Structures	1		
IV. Water Resource Characteristics			
Surface Water Proximity			3
Surface Water Use			3
Groundwater Proximity			3
Groundwater Use			3
Other: Coal tar found during the excavation of a sewer line through the middle of the site.			2
Subtotal	4	4	26
Total	34		

Staunton Manufactured Gas Plant (MGP)
SITE SUMMARY REPORT

Location: Northeast corner of North Wood Street and Phillip Street, Staunton, Illinois

Physical Description: The topography in the vicinity of the site is nearly flat. The entire 0.63-acre site is enclosed by a chainlink fence. Within the fenced area, the majority of the site is covered with gravel.

Owner of Site: Illinois Power

Current Use: Illinois Power gas distribution regulator station and storage area.

Assessment Concerns:

- ♦ Residential area adjacent to the site.
- ♦ Flowable tar appears on the ground surface on hot days.
- ♦ It appears that flowable tar is migrating into an adjacent drainage ditch, which drains towards a residence.

Brief Summary of Activities:

1992

In response to the frequency and magnitude of observances of flowable coal tar, a Phase IC RECON investigation was conducted on-site during September, 1992. Soil and soil-gas samples were collected for in-field chemical analysis. Shallow test holes were excavated by hand to observe conditions in the near-surface materials. The results of the investigation indicated:

- ♦ Coal-tar residues were observed in the fill material and underlying soil along the western edge of the gas holder.
- ♦ The source of the coal-tar residues appears to be surface spillage. Absence of volatile indicator compounds (BTEX) suggests that the residues have been previously exposed on the surface.
- ♦ In-ground structures, including the gas holder, have been filled with clay soils which have been slightly impacted by MGP residues. No significant subsurface release from the gas holder appears to have occurred.
- ♦ Subsurface soils have been slightly impacted by organic compounds which may have been derived from MGP residues.

1993

IP conducted three phases of soil removal at the site to achieve clean-up objectives set by the Illinois Environmental Protection Agency (EPA). A total of 807 cubic yards of contaminated soil and concrete were removed from the site and disposed of at BFI Modern Landfill. Analytical results indicate that soils contaminated with coal-tar constituents have been effectively removed from the site. Residual PNA's are still present in soil two feet below ground surface on the railroad side of the drainage ditch. These may not originate from the MGP.

The Illinois EPA supervised the soil removal and collected soil samples for analysis. After review of the post-removal sampling results, the Illinois EPA issued a notice pursuant to Section 4(y) of the Illinois Environmental Protection Act confirming that no further action is required and releasing IP from further liability at this site. This is the first MGP site in Illinois to receive such clearance from the Agency.

No further action is planned at the MGP site.

MANUFACTURED GAS PLANT SITE

RANK SCORESHEET

Site Name: Staunton Gas Co.

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size	1		
Location			3
Potential for Contamination			
0 - 20'	1		
20 - 50'	1		
Current Use	1		
Current Ownership	1		
II. Waste Characteristics			
Visible Wastes			3
Odor Problem		2	
Water Problem	1		
III. Facility Structures		2	
IV. Water Resource Characteristics			
Surface Water Proximity	1		
Surface Water Use	1		
Groundwater Proximity	1		
Groundwater Use	1		
Other: Tar is visible on ground surface and appears to be leaching out of the side of an adjacent ditch.			4
Subtotal	10	4	10
Total	24		

Appendix A

Potential Manufactured Gas Plant Sites in 1986

Potential Manufactured Gas Plant Sites in 1986

Site Name

St. Clair County Gas Co. - E. St. Louis
Gas Station B - Granite City
Decatur Railway and Light Co.
Citizens Lighting Co. - LaSalle
Carlinville.
Danville Gas & Light Co.
Champaign & Urbana Gas Light & Coke Co.
Cairo City Gas Co.
Galesburg Gas & Electric Light Co.
Jacksonville Gas Light & Coke Co.
Centralia Gas & Electric Co.
Kewanee Public Service Co.
Southern Illinois Light & Power Co. - Hillsboro
St. Clair County Gas Co. - Belleville
Granite City Gaslight & Fuel Company, Inc.
Litchfield Gas & Electric Co.
Citizens Gas, Electric & Heating Co. - Mt. Vernon
Monmouth Public Service Co.
Staunton Gas Co.
Clinton Gas and Electric Co.
Greenville Gas and Electric Co.
Gillespie Gas Co.
Galva Gas Light & Coke Co.
Alton
Ottawa
Princeton
Edwardsville
Bloomington
Cahokia (Two companies)
Venice Gas
Sparta
Utility Gas Coal Co.

Gas Manufacturing Activities
Not Attributable to Illinois Power Company and/or
Predecessor Companies

Alton

A review of the available records and discussions with representatives of Union Electric indicate that this site is the responsibility of Union Electric. The manufacturing facilities were located at 805 Bell Street. This location is now the Alton Post Office and parking lot.

Bloomington

Union Gas & Electric Company (Citizens Gas & Light Company) had a gas manufacturing site west of Jefferson near the Illinois Gulf & Central Railroad. This site is now the location of Northern Illinois Gas Company facilities.

Ottawa

Ottawa Gas, Light & Coke Company manufacturing facilities were located between Webster and Illinois Streets along Walker in Ottawa, Illinois. Northern Illinois Gas Company has a regulator station at this site.

Princeton

Princeton Gas & Electric Company gas manufacturing facilities were located at 602 to 6012 North Main. This site is located in an industrial/urban area. Northern Illinois Gas Company supplies the town of Princeton with gas.

Gas Distribution Companies
Without Gas Manufacturing Facilities

Review of available records indicates that the following companies were involved in the transport and distribution of manufactured gas in St. Clair and Madison Counties:

<u>Name</u>	<u>Date Acquired By Illinois Power Company or Predecessor Company</u>
Cahokia Gas & Oil	1926
Cahokia Manufacturer's Gas Co.	1940, 1941, & 1947
Venice Gas Co.	1928

These companies did not manufacture gas. The gas was purchased from St. Louis Coal Gas and Coke Co., Granite City and/or St. Clair County Gas Co., E. St. Louis. These companies supplied and distributed gas to Edwardsville, Collinsville, Staunton, and Venice. In addition, Cahokia Gas & Oil Company had a natural gas well in Staunton, Illinois. Cahokia Gas & Oil Company supplied the City of Staunton from this source.

Sparta Gas & Electric Company supplied the town of Sparta with gas. The source of this gas was a natural gas well located in Sparta.

Appendix B

Rationale for Illinois Power Company's
Site Characterization and Ranking Values

Rationale for Site Characterization and Rank Values

Site Characteristics

Size - The size of a former gas plant site is important for the simple reason that bigger sites generally had larger plants with corresponding larger quantities of waste.

Location - This factor attempts to reflect the proximity of human populations to the site. The ranking criteria reflects an increasing probability and potential for more severe adverse impacts as nearby populations increase.

Potential for Contamination - This factor was subdivided into two criteria. It first considers the depth from 0 - 20' and characterizes the potential for contamination of shallow aquifers from surface and near-surface waste disposal activities. It then considers the 20 - 50' depth and defines the potential for contamination of shallow aquifers from waste disposal activities at greater depths. The sites were located on the groundwater susceptibility maps (2) of the Illinois State Geological Survey (ISGS). The susceptibility ratings are based upon the soils and geology of a site and consider the time and pathway a pollutant could take to cause a problem. The ranking values were assigned relative to the permeability of the soils found within the area, i.e., the greater the permeability, the greater the risk.

This potential for contamination criteria characterizes the regional geology. This information should not be used for finite evaluation of a specific site. It can only be validated by hydrogeological investigation. Figures 1 and 2 provide descriptions of geological materials relative to the two ISGS depth classifications maps.

Current Use - This factor reflects concerns of access to the site and the potential for exposure of the population to the wastes contained on site. Uncontrolled access by the general public results in the highest potential risk while controlled access and use by company or other industrial employees represents lower concerns.

Current Ownership - This factor also considers access to the site relative to resolution of legal liabilities and to involvement of regulatory agencies. Sites which are entirely owned by Illinois Power Company receive a lower rating. Conversely, sites owned by others received the higher rating.

Waste Characteristics - This category rates the site for the presence of wastes.

Visible Wastes - The best available site-specific information on the possible extent of waste disposal migration comes from visual inspection. The search focused on visible tarry waste and spent oxide waste. These wastes generally pose the most significant risk. Ash and char may also have been observed but these wastes usually pose minimal risk. The criteria for ranking is based upon the presence of tar and spent oxide waste, and not on the presence of ash and char. The difference between high, medium, and low ranking was subjective and qualitative.

Odor Problem - Odors can be noticeable at a former gas plant. In a populated area, off-site odors may increase potential risk. On-site odors may give some indication of extent of waste stored and can provide some indication of risk at sites depending on their location and ownership.

Water Problem - This factor is intended to address the likelihood of surface water impacts based upon site inspections. Assignment of high, medium, and low rank is related to actual transport to a stream, potential transport to a stream, or no potential for transport to a stream.

Facility Structures

This factor is intended to rate the site based upon the information provided in the records and the physical structures remaining at the site. The difference between a high, medium, or low rating is subjective and qualitative.

Water Resource Characteristics

Surface Water Proximity - This factor is intended to reflect the possible impact on surface water. This rating is assigned according to the proximity of the site to a surface water body.

Surface Water Use - If a surface water is being impacted by a gas site, the magnitude of the impact depends on the nature and concentration of the pollutants, and the use of the water. The ranking criteria attempts to reflect the more serious risks associated with potable and recreational uses.

Groundwater Proximity - The potential magnitude of groundwater impacts depends upon the geologic materials through which the waste constituent must migrate and the distance to the groundwater, i.e., the greater the depth to groundwater, the lower the risk. Depth to the groundwater was determined from the geological materials data as defined by the potential for contamination data.

Groundwater Use - This factor reflects two basic concerns: the use of the groundwater and depth of the groundwater source. Groundwater that is not used, regardless of depth, is assigned a low risk. Deep groundwater sources, i.e., wells greater than 50' deep, are assigned a medium value. Groundwater sources less than 50' are assigned a high value. The groundwater use designation was determined from: (1) the geological materials data as defined by the potential for contamination ("potential use" is equated to "real use"), (2) proximity of site to a receiving stream; and (3) the evaluator's knowledge of the area.

Other

This criteria allows the evaluator to assign additional "weighting" for sites containing a large number of potential sources and/or active transport pathways. It is based on the judgement of the evaluator.

MGP Site
Rank Scoresheet

Site Name: Criteria

	Low (1)	Medium (2)	High (3)
I. Site Characteristics			
Size	< 3 acres	3 to 7 acres	> 7 acres
Location	Industrial	Industrial/Residential	Residential
Potential for Contamination			
0 - 20'	Impermeable	Moderately Permeable	Permeable
20 - 50'	Impermeable	Moderately Permeable	Permeable
Current Use	IP Facility	Industrial or Municipal Facility	Residential
Current Ownership	IP	Partial IP	Other
II. Waste Characteristics			
Visible Wastes	None Present	Potential	Actual
Odor Problem	None Present	Potential	Actual
Water Problem	None Present	Potential	Actual
III. Facility Structures			
	No Visible Structures	Records Delineate Foundations and/or Visible Foundations and/or Buildings	Records Delineate Underground Tank(s) and/or Visible Tops of Underground Tank(s)
IV. Water Resource Characteristics			
Surface Water Proximity	Adjacent to Drainage Ditch	Adjacent to Intermittent Stream	Adjacent to Perennial Stream
Surface Water Use	No Use	Downstream Use	Local Use
Groundwater Proximity	> 50' Depth	50-10' Depth	< 10'
Groundwater Use	No Use	Use, Well > 50' Depth	Use, Well < 50' Depth
Other: Additional "weighting" for large number of potential sources and/or active transport pathways.			

Appendix Table B-2

Manufactured Gas Plant Sites 1986 Rank Summary
 Potential for Adverse Impact
 to Human Health and Welfare
 (High to Low)

<u>Rank</u>	<u>Rank Scoresheet Site Name</u>	<u>Total</u>
1	St. Clair County Gas Co. - E. St. Louis	38
2	Citizens Lighting Co. - LaSalle (Y)	32
3	Carlinville (X)	32
4	Gas Station B - Granite City (X)	30
5	Decatur Railway and Light Co. (X)	30
6	Danville Gas & Light Co. (X)	29
7	Champaign & Urbana Gas Light & Coke Co.	29
8	Galesburg Gas & Electric Light Co. (Y)	28
9	Jacksonville Gas Light & Coke Co. (Y)	27
10	Cairo City Gas Co.	26
11	Centralia Gas & Electric Co. (X)	24
12	Southern Illinois Light & Power Co. - Hillsboro (X)	23
13	Kewanee Public Service Co. (Y)	22
14	St. Clair County Gas Co. - Belleville	22
15	Granite City Gaslight & Fuel Company, Inc. (X)	20
16	Litchfield Gas & Electric Co. (X)	20
17	Citizens Gas, Electric & Heating Co. - Mt. Vernon	20
18	Monmouth Public Service Co.	20
19	Clinton Gas and Electric Co. (X)	18
20	Staunton Gas Co. (X)	17
21	Greenville Gas and Electric Co. (X)	15
22	Galva Gas Light & Coke Co.	15
23	Gillespie Gas Co. (X)	14

Notes

X = Site owned by Illinois Power Company.

Y = Site partially owned by Illinois Power Company.

Appendix C

Cleanup of Manufactured Gas Plants:
Utilities May Be Liable

Cleanup of Manufactured Gas Plants: Utilities May Be Liable

WILLIAM H. PHILLIPS

At one time, thousands of manufactured gas plants in the United States produced gas by heating coal or oil.¹ The facilities were largely defunct by the 1940s because of the development of interstate natural gas pipelines and were dismantled. However, the by-products of the gas manufacturing process (tars, oils, scrubber wastes, ash, slag, and clinkers) remain on-site and are becoming the subject of expensive cleanup actions. As utilities are faced with increasing liability for cleanup costs, it is likely that they will not only increase the rates they charge consumers but will also turn to their insurers for relief. The liabilities that are presented to the insurers could easily total millions of dollars for each site.

BACKGROUND: THE MANUFACTURE OF GAS

The first practical application of coal gas was in 1792, when William Murdock illuminated his home with gas distilled from coal in an iron kettle.² The basic method of producing coal gas has remained substantially the same: coal is placed in a closed vessel, heated, and the evolving gases are captured.

Between 1816 and the 1950s, gas for cooking, lighting, and heating was manufactured in facilities called gas plants, gasworks, or town gas plants. Manufactured gas was used for the same purposes that natural gas is used today. For most areas of the country, manufactured gas was the major gas fuel available during this period, and production peaked shortly after World War II.³

However, a national system of interstate natural gas pipelines and high-pressure gas storage facilities, installed after World War II, gradually eliminated the demand for manufactured gas. The gas plants were usually idle for several years before they were decommissioned. The most frequent reason for decommissioning the plants was to remove structures from the site and reduce the site valuation for tax purposes.⁴

Gasworks were usually located in downtown areas or old industrial districts. The recent trend to redevelop these areas has resulted in the discovery of many former gasworks sites across the country. Redevelop-

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